

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-59 (Cancelled)

60. (New) A burner suppliable with a mixture of air and fuel, comprising a burner body provided with a diffuser in which openings are made for the passage and subsequent combustion of said mixture, wherein said diffuser is divided into a plurality of diffuser elements that are adjacent to one another, each diffuser element being at least partially free to expand in at least one direction.
61. (New) The burner according to claim 60, wherein each diffuser element has a shape that is such as to give it great mechanical rigidity.
62. (New) The burner according to claim 61, wherein said diffuser element has a U-shaped cross section.
63. (New) The burner according to claim 62, wherein said diffuser element comprises a top face having a substantially rectangular shape whereupon said openings are made for the passage of said mixture of air and fuel and two side faces connected to the two greater opposite sides of said first face and approximately perpendicular thereto.

64. (New) The burner according to claim 63, wherein said side faces are connected to said top face in such a way as to be able to rotate elastically in relation to it.
65. (New) The burner according to claim 63, wherein said side faces are shaped in such a way as to be shapingly coupled with corresponding side faces of adjacent diffuser elements.
66. (New) The burner according to claims 63, wherein said diffuser element furthermore comprises two front faces, connected to the lesser sides of said top face and approximately perpendicular thereto.
67. (New) The burner according to claim 66, wherein said front faces are connected to said top face in such a way as to be able to rotate elastically in relation to it.
68. (New) The burner according to claim 60, wherein each diffuser element is associated with a flow-distributing element of said mixture provided with openings for the passage of said mixture.
69. (New) The burner according to claim 68, wherein said flow-distributing element is arranged inside said diffuser element.

70. (New) The burner according to claim 69, wherein said flow-distributing element comprises a plate wherein said openings are made, said plate being arranged inside said distributing element.
71. (New) The burner according to claim 70, wherein said plate is provided with spacer elements.
72. (New) The burner according to claim 71, wherein said spacer elements are arranged at two opposite sides of said plate.
73. (New) The burner according to claim 71, wherein said spacer elements have the shape of a bump.
74. (New) The burner according to claim 71, wherein said spacer elements have the shape of a projection.
75. (New) The burner according to claim 71, wherein said spacer elements comprises a plurality of traverse projections that are substantially parallel to one another.
76. (New) The burner according to claim 69, further comprising rest elements for said flow-distributing elements associated with said diffuser elements.

77. (New) The burner according to claim 76, wherein said rest elements comprise pairs of support rods.
78. (New) The burner according to claim 77, wherein a pair of said support rods is associated with each diffuser element.
79. (New) The burner according to claim 78, wherein said support rods are arranged substantially parallel to side faces of the diffuser element and protrude at their ends from front faces of the diffuser element, through holes made in the latter.
80. (New) The burner according to claim 79, wherein the coupling between said support rods and said holes is a coupling with play.
81. (New) The burner according to claim 78, wherein said support rods are arranged substantially perpendicular to side faces of the diffuser element and protrude at their ends from said side faces, through holes made in the latter.
82. (New) The burner according to claim 81, wherein the coupling between said support rods and said holes is a coupling with play.

83. (New) The burner according to claim 76, wherein said rest elements comprise tabs obtained in front faces of said diffuser elements.
84. (New) The burner according to claim 76, wherein said rest elements comprise recesses made in front faces of said diffuser elements.
85. (New) The burner according to claim 68, wherein said flow-distributing element has a U-shaped cross section, with a first face substantially parallel to a top face of the diffuser element and a second face and a third face substantially parallel to side faces of the diffuser element, said second face and said third face being connected to free ends of said side faces.
86. (New) The burner according to claim 85, wherein in said first face of said flow-distributing element openings are made for the passage of said mixture of air and fuel.
87. (New) The burner according to claim 86, wherein in said first face of said distributing element an incision is made that extends along the entire length of said first face, parallel to greater sides thereof.
88. (New) The burner according to claim 61, wherein said diffuser element has a box structure.

89. (New) The burner according to claim 88, wherein said diffuser element comprises a first face intended to be turned towards the outside of the burner whereupon said openings are made for the evacuation of said mixture, and a second face opposite said first face, intended to be turned towards the inside of the burner in which further openings are made for the passage of said mixture, said second face acting as a distributing element of the flow of said mixture.
90. (New) The burner according to claim 89, wherein on said second face an incision is made, that extends along the entire length of said face.
91. (New) The burner according to claim 89, wherein said first face and said second face have the shape of a sector of a cylindrical surface.
92. (New) The burner according to claim 91, wherein said first face and said second face are joined together by means of curved joint elements.
93. (New) The burner according to claim 91, wherein said first face and said second face are joined together by joint elements shaped in such a way that joint elements of diffuser elements adjacent to one another are shapingly coupled to one another.

94. (New) The burner according to claim 61, wherein said diffuser element has a substantially triangular plan shape, with a top face, in which openings are made for the evacuation of said mixture of air and fuel, side faces and front face.
95. (New) The burner according claim 60, wherein said openings comprise openings having the shape of slits.
96. (New) The burner according claim 60, wherein said openings comprise openings having the shape of holes.
97. (New) The burner according to claim 60, wherein said openings comprise rows of slits alternating with rows of holes.
98. (New) The burner according to claim 60, wherein said openings comprise rows of slits staggered between themselves.
99. (New) The burner according to claim 60, wherein said openings comprise rows of slits, staggered between themselves, alternating with rows of holes, staggered between themselves.

100. (New) The burner according to claim 60 wherein rigidity-varying elements are provided that are suitable for reducing the rigidity of the diffuser element in a direction parallel to a greatest dimension thereof.
101. (New) The burner according to claim 95, wherein rigidity-varying elements are provided that are suitable for reducing the rigidity of the diffuser element in a direction parallel to a greatest dimension thereof, said rigidity-varying elements comprising further openings having a shape of slits arranged at regular intervals along rows of slits and extending along the entire width of a top face of said diffuser element.
102. (New) The burner according to claim 100, wherein said rigidity-varying means comprises end slits of rows of slits that continue for a short length on side faces of said diffuser element and end on said faces with a widening.
103. (New) The burner according to claim 101, wherein said further openings continue for a short length, at both their ends on side faces of said diffuser element.
104. (New) The burner according to claim 103, wherein said further openings have widenings at their ends.

105. (New) The burner according to claim 103, wherein said further openings terminate at their respective ends with an L-shaped length, terminating in turn with a widening.
106. (New) The burner according to claim 89, wherein said first face of said diffuser element is equipped, at its respective ends, with respective protrusions.
107. (New) The burner according to claim 106, wherein said protrusions can be turned towards the outside, or towards the inside of the diffuser element.
108. (New) The burner according to claim 60, further comprising a base element with a substantially annular shape and a head element with a substantially circular shape, between which said diffuser elements are fixed, which are arranged in a cylindrical envelope configuration.
109. (New) The burner according to claim 60, comprising a first burner body and a second burner body connected together and aligned along a straight axis.
110. (New) The burner according to claim 109, wherein said first burner body comprises a base element and a head element, between which a first diffuser is arranged and fixed consisting of a plurality of diffuser elements arranged as a cylindrical envelope configuration.

111. (New) The burner according to claim 110, wherein said second burner body comprises a base element, connected to the head element of the first burner body, and a head element between which a second diffuser is arranged and fixed, consisting of a plurality of diffuser elements arranged as a cylindrical envelope configuration.
112. (New) The burner according to claim 60, wherein said diffuser elements are arranged in a substantially flat configuration.
113. (New) The burner according to claim 112, further comprising a substantially rectangular frame with a peripheral flange, which is also substantially rectangular, inside which at least one row of diffuser elements placed alongside one another is arranged to form a diffuser.
114. (New) The burner according to claim 113, wherein inside said frame a double row of diffuser elements placed alongside one another is arranged to form said diffuser.
115. (New) The burner according to claim 94, comprising a substantially cylindrical body, one of the bases of which forms a diffuser made with diffuser elements having a substantially triangular plan shape.

116. (New) The burner according to claim 60, comprising a body having a hollow cylindrical shape, the internal surface of which forms the diffuser of the burner.
117. (New) The burner according to claim 108, wherein said base element and said head element are respectively equipped with internally hollow annular protrusions with U-shaped sections in which the ends of said diffuser elements can be inserted.
118. (New) The burner according to claim 117, wherein respective front walls of said annular protrusions are provided at regular intervals with projections suitable for being coupled with projections made in the ends of said diffuser elements.
119. (New) The burner according to claim 113, wherein walls of the substantially rectangular frame of the burner, parallel to front faces of the diffuser element are provided with recesses.